Iowa Department of Public Health

Overview: Data Collection Software Systems and Technology Reinvestment Fund Requests

Transportation, Infrastructure, and Capitals Joint Appropriations Subcommittee

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Technology Reinvestment Fund Requests

- Division of Health Care Promotion and Chronic Disease Prevention

  Data Integration Project: FY 2016 $500,000 and FY 2017 $500,000
    - Goals:
        - Integrate 5 data collection systems for 8 programs into 1
        - Create a single web-based, integrated electronic data management system
        - Increase operational efficiencies for Providers and Sub-Contractors
        - Decrease administrative burden of data entry for Providers
        - Increase efficient use of data to inform policy decisions
- Data Collection Software System Review – FY 2016 $500,000
    - Goals:
        - Contract with a national firm with public health and IT experience
        - Help IDPH with short and long-term strategies for system consolidation and replacement
        - Learn from other states' to understand best practices of data collection

Family Health - Why Now?

- Current state includes 5 systems
  - All operate & function independently of each other
  - Not all are web-based
  - All are unable to easily share data among programs or with the public
  - Aging technology results in costly updates and several applications pose considerable security risk
- Future state includes a single integrated system supporting 8 programs. System will be a web-based, integrated electronic data management system to include case management, referral management, risk assessment, billing, and client and population-level reporting.
- Leveraging existing federal and non-governmental funds committed for this project
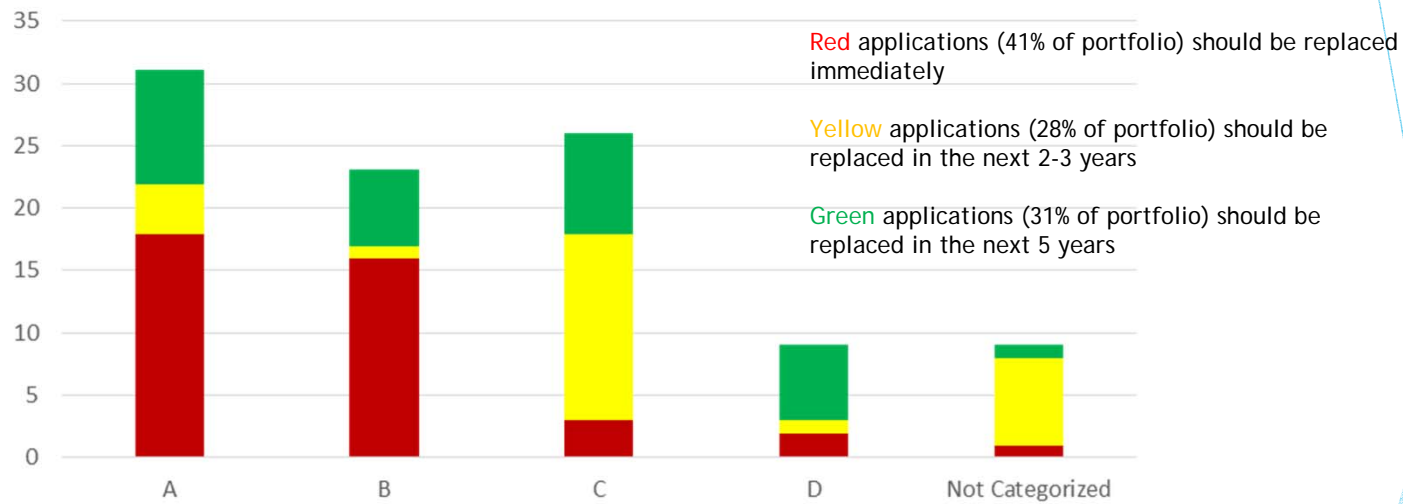
IDPH Application Review

▶ Complete inventory of applications

▶ Assessment of the condition of the applications

▶ Cost model for applications based upon size

▶ Calculation of the cost to upgrade and sustain over time

    ▶ Total Cost of Ownership (TCO)

    ▶ Technical Debt

▶ Create a strategy for upgrading applications

    ▶ Combine like functions instead of siloed applications

    ▶ Determine long term sustainability needs

What is Technical Debt?

- **Unknown costs** of updating information technology infrastructure including networks, servers and applications

- **Unscheduled and Unfunded** system work that needs completed

- **Business Inefficiencies** due to dated applications

  - Inefficient business processes

  - Data not available or hard to get

  - Poor Customer Service

- **Increased support costs** due to outdated technologies

- **Security Risks** due to outdated, unsupported applications and operating systems

What is technical debt?

Count of Applications by Size

Red applications (41% of portfolio) should be replaced immediately

Yellow applications (28% of portfolio) should be replaced in the next 2-3 years

Green applications (31% of portfolio) should be replaced in the next 5 years

Average Application Cost by Size				
	A	B	C	D
One-Time	$9,500	$50,000	$395,000	$2.4M
Ongoing	$9,000	$41,000	$180,000	$875K

Components of Application Total Cost of Ownership (TCO)

One-Time Replacement
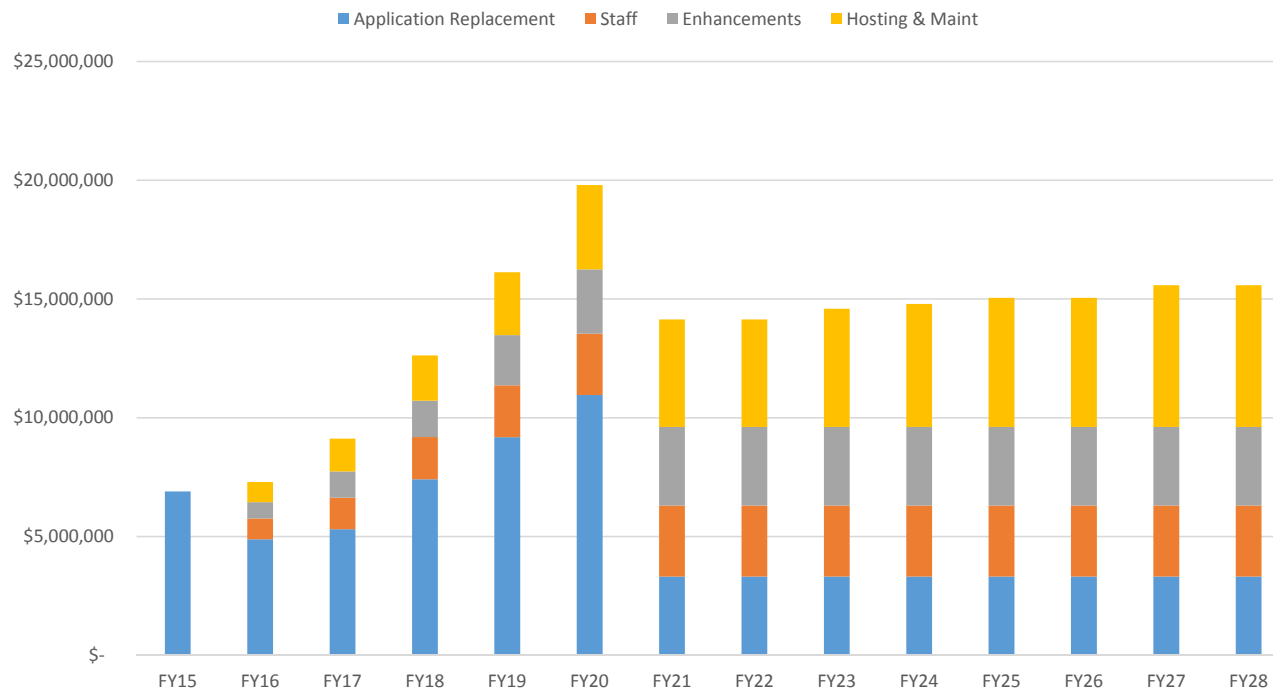
- Software Acquisition & Implementation
- Data Migration
- IDPH Program Staff (Backfill)

Annual Ongoing

- Depreciation
- Enhancements
- Hosting
- IDPH Program Staff (Support)
- Infrastructure Maintenance
- Licensing
- Maintenance
- Security

A Different Approach

Active Application Portfolio Risk Management

■ Application Replacement   ■ Staff   ■ Enhancements   ■ Hosting & Maint

System Assessment Goals

- Identify programs across IDPH that have similar functional needs
- Create strategies for acquiring systems to fulfill those needs
- Determine strategies to integrate and share data more easily
  - Health Information Network
  - Standards-based data collection
  - Make data readily available
- Acquire funding sources to support TCO

How Did We Get Here?

- Lack of understanding application total cost of ownership (TCO)
- Limited funding for new system acquisition
- Siloed funding streams based upon Programs not functions
- Lack of sustainable ongoing funding

Next Steps

- **Educate & inform** staff regarding application TCO.

- **Assess IDPH business functions** to determine areas where applications can be combined to improve customer service, increase efficiency and where possible, reduce debt.

- **Develop plan** to actively reduce & manage IDPH technical debt.

- **Evaluate** grant applications & requests for new applications to ensure funding is addressed for full scope of application acquisition, implementation and depreciation.

- **Reduce** IDPH technical debt.